

# Harness Spreader Report

Inspection certificate number: **MISC\_287.2024**

**Manufacturer data:**

Manufacturer name: **Skywalk GmbH & Co. KG**  
 Representative: **Mr. Arne Wehrlin**  
 Street: **Windeckstrasse 4**  
 Post code place: **83250 Marquarstein**  
 Country: **Germany**

**Sample data:**

Name Spreader: **Hybrid Spreader Bar**  
 Max Load [kg]: **240**  
 Serial number: **SA-HSB-V2R9\_005**  
 Date of reception: **08.08.2024**

**Test data**

Place of test: **Villeneuve**  
 Date of test: **09.08.2024**  
 Inspector: **Alexandre Jofresa**

**Atmosphere AGL:**

[C°]	25
RH [%]	49
[hPa]	1008

**Summary of Spreader's test**

Test id	Test configuration <sup>(2)</sup>	Top Att. Point	Bottom Attachment point	Min. Load [N]	Result
1	Induced load from the pilot and a heavy passenger (short) to the main point	Main	Pilot Short	21600	POSITIVE
2	Induced load from the pilot and a light passenger (long) to the main point	Main	Pilot Long	21600	POSITIVE
3	Induced load from the pilot and a heavy passenger (short) to the rescue point	Rescue	Pilot Short	21600	POSITIVE
4	Induced load from the pilot and a light passenger (long) to the rescue point	Rescue	Pilot Long	21600	POSITIVE
5	Induced load from the main point to between the spreader bar	Main	Between the spreader bar	10800	POSITIVE
6	Induced load between the two ends of the integrated rescue bridle	Bridle	Bridle	24000	POSITIVE



**Issue data**

Place of declaration: **Villeneuve**  
 Date of issue: **27.09.2024**

Managing director: **Andrea Wigger**  
 Signature: 

Manufacturer	Instrument	Type no	S/N	Validity Calibration
HBM	Load Sensor GE01	1-S9M/50KN-1	31314643	23.08.2028

This signature approves the validity of the test reports if available. Air Turquoise SA, having thoroughly assessed the sample mentioned above, declares it was found conform with all requirements defined by the following norms:

Airworthiness Requirements **NfL 2-565-20**

The model has been tested according to NfL 2-565-20 point 3.2.4, up to 9G of its total weight in flight or at least 1350 daN during 10 seconds.

<sup>(1)</sup> Calculated values in tests reports include the value minus the uncertainty (on safe side) / The uncertainty stated is the expanded uncertainty obtained by multiplying the standard uncertainty by the coverage factor k = 2. The value of the measurand lies within the assigned range of values with a probability of 95%.

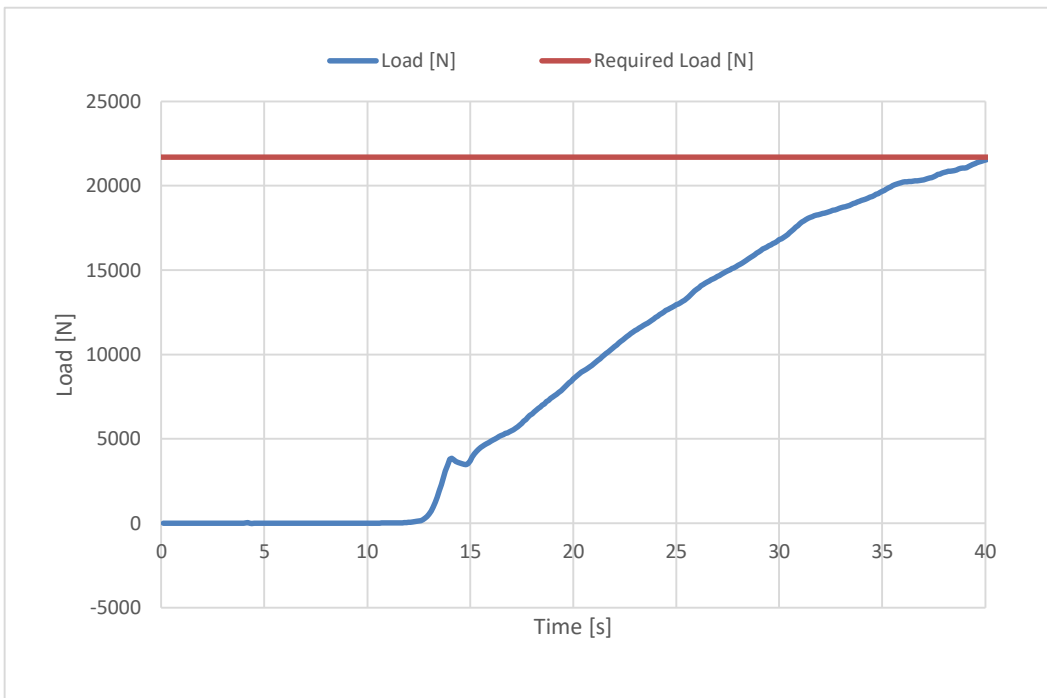
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Name Spreader **Hybrid Spreader Bar**

**Test 1**

Standard	<b>NfL 2-565-20</b>
Test setup	<b>Induced load from the pilot and a heavy passenger (short) to the main point</b>
Min. Required load [g]	<b>9</b>
Min. Required load [N]	<b>21600</b>
Min. Required duration [s]	<b>10</b>
<b>Result</b>	
Test duration [s]	<b>11.1</b>
Any signs of structural failure	<b>No</b>
Test results	<b>POSITIVE</b>

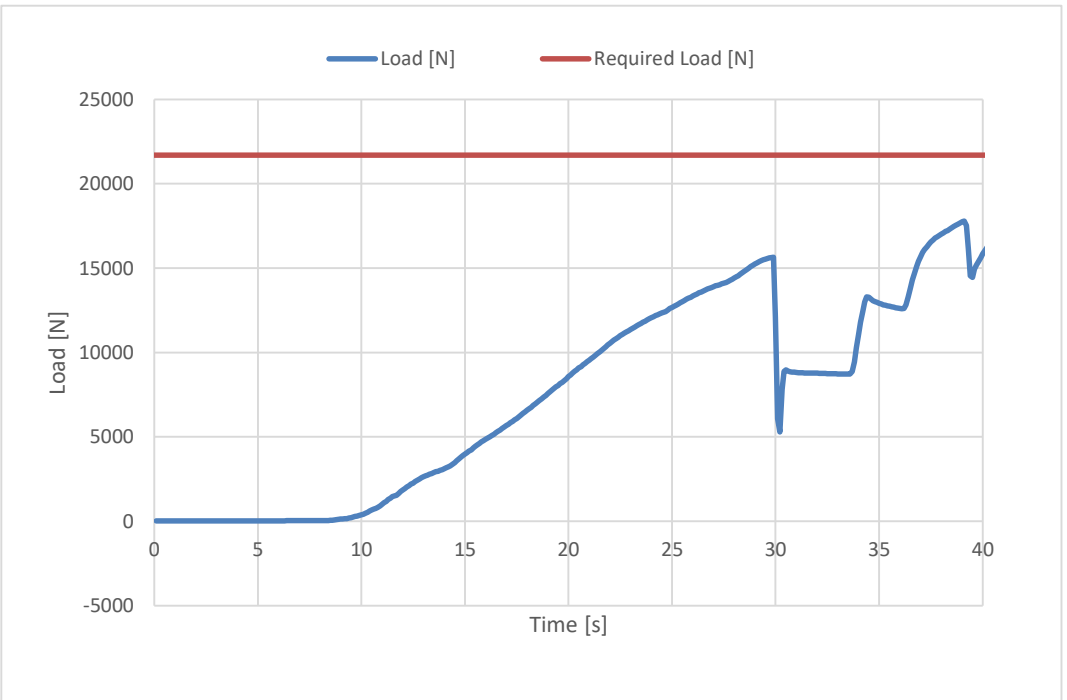


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Name Spreader **Hybrid Spreader Bar**

**Test 2**

Standard	<b>NfL 2-565-20</b>
Test setup	<b>Induced load from the pilot and a light passenger (long) to the main point</b>
Min. Required load [g]	<b>9</b>
Min. Required load [N]	<b>21600</b>
Duration [s]	<b>10</b>
<b>Result</b>	
Test duration [s]	<b>11</b>
Any signs of structural failure	<b>No</b>
Test results	<b>POSITIVE</b>

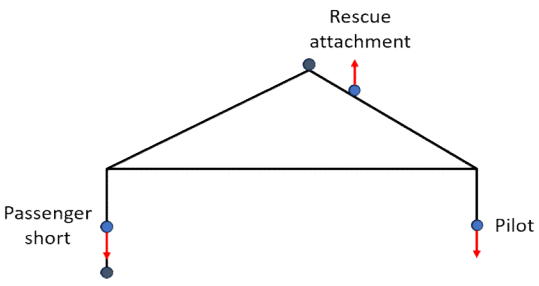
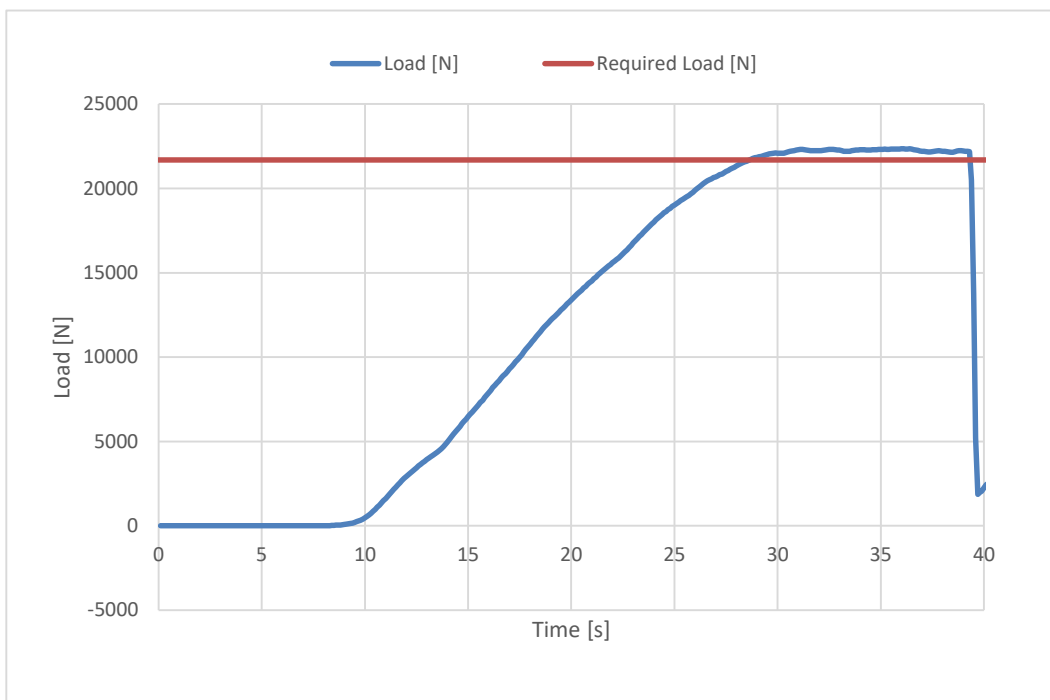


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Name Spreader **Hybrid Spreader Bar**

**Test 3**

Standard	<b>NfL 2-565-20</b>
Test setup	<b>Induced load from the pilot and a heavy passenger (short) to the rescue point</b>
Min. Required load [g]	<b>9</b>
Min. Required load [N]	<b>21600</b>
Duration [s]	<b>10</b>
<b>Result</b>	
Test duration [s]	<b>10.7</b>
Any signs of structural failure	<b>No</b>
Test results	<b>POSITIVE</b>

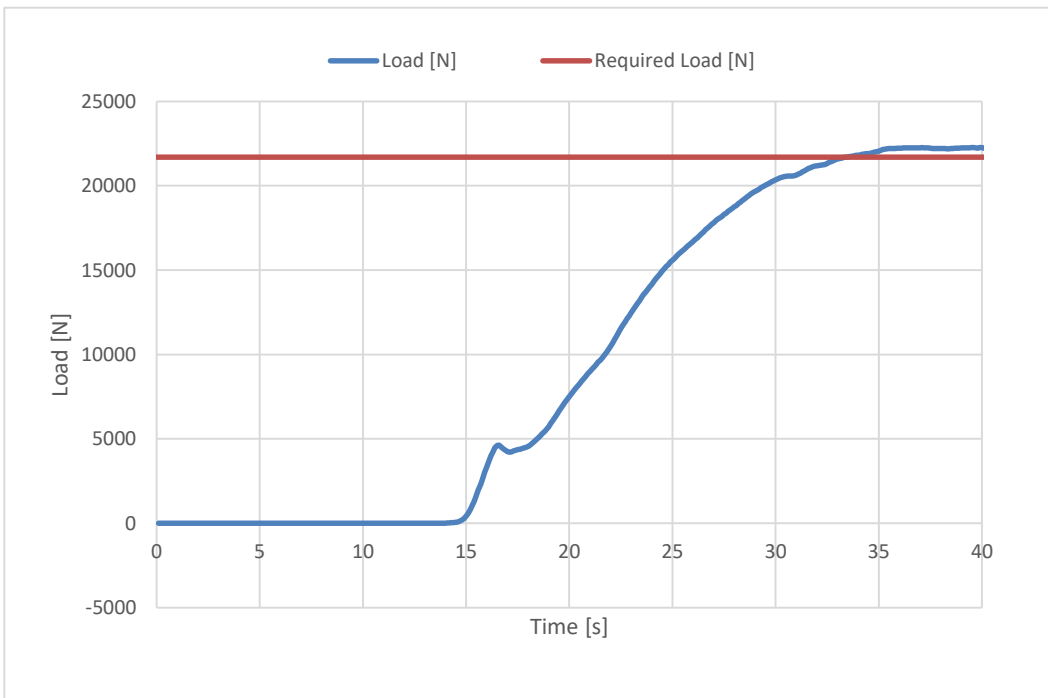



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**Test 4**

Standard	<b>NfL 2-565-20</b>	
Test setup	<b>Induced load from the pilot and a light passenger (long) to the rescue point</b>	
Min. Required load [g]	<b>9</b>	
Min. Required load [N]	<b>21600</b>	
Duration [s]	<b>10</b>	
<b>Result</b>		
Test duration [s]	<b>10.6</b>	
Any signs of structural failure	<b>No</b>	
Test results	<b>POSITIVE</b>	



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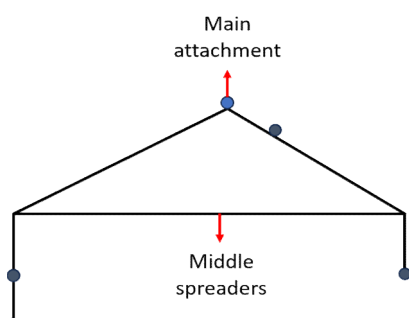
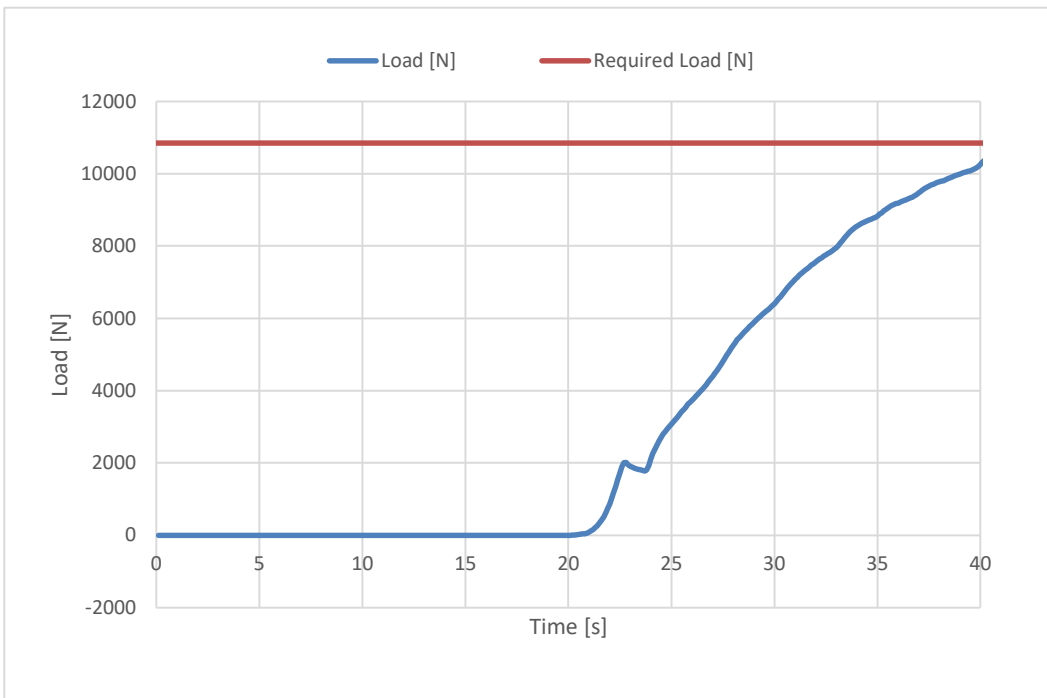
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**Test 5**

Standard	<b>NfL 2-565-20</b>
Test setup	<b>Induced load from the main point to between the spreader bar</b>
Min. Required load [g]	<b>4.5</b>
Min. Required load [N]	<b>10800</b>
Duration [s]	<b>10</b>

<b>Result</b>	
Test duration [s]	<b>11</b>
Any signs of structural failure	<b>No</b>
Test results	<b>POSITIVE</b>

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**Harness Structural test**

**Test ID 11**

Standard	<b>NfL 2-565-20</b>
Test setup	<b>Connecting element for rescue</b>
Attachment points	<b>End point (emergency parachute)</b>
Anchor points	<b>Both attachment to spreader</b>
Required load [g]	<b>n/a</b>
Required load [N]	<b>24000</b>
Minimum test duration [s]	<b>0.3</b>
Type of connecting element	<b>a) two single el</b>
<b>Result</b>	
Test duration [s]	<b>4.9</b>
Any signs of structural failure	<b>No</b>
Test results	<b>POSITIVE</b>

